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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,368	07/29/2003	Praba Kharan Baptist	2993-479US RM/JR/mp	5159

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OGILVY RENAULT LLP (PWC)
1981 MCGILL COLLEGE AVENUE
SUITE 1600
MONTREAL, QC H3A 2Y3
CANADA

EXAMINER

COLLINS, TIMOTHY D

ART UNIT PAPER NUMBER

3643

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/628,368		BAPTIST ET AL.	
	Examiner		Art Unit	
	Timothy D. Collins		3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,12-22,24 and 25 is/are rejected.
- 7) ☒ Claim(s) 11 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/10/05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Drawings

The drawings were received on 11/10/05. These drawings contain new matter and will not be entered.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the new figure 6, which has not been seen previously contains new matter. The part number 82 is shown to be attached to the conduit 40 and this is the new matter. The examiner suggests that the applicant use a "black box" method to show the sensor. For example, the applicant can move the positioning of the part 82 to somewhere along the arrows from the part 84 to the part 40 and show the location more abstractly, because the applicant had not previously provided any details of the position of the sensor 82. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 8-10, 12-20, 22, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 2,435,990 to Weiler.

The deicing system of Weiler teaches all of the limitations of claims 1 and 13. The device of Weiler utilizes pressurized lubricating oil (used to lubricate bearings, 15, 33, and 34) to heat the components of the engine inlet including the inlet grille as well as the outer nacelle lip, as seen in figure 1 and in detail in figures 2 and 3. The inlet lip of Weiler defines a leading edge of the nacelle and has a conduit therein (headers 56 and 57) that is in fluid flow communication with the pressurized oil system (via conduit 53, which feeds the pressurized oil from the pump, 50, and distributor, 52) and defines an oil passage for circulation therethrough, as is clearly seen in the figures. The conduit is formed by the material forming the outer surface of the lip and is thus clearly in heat transfer communication with the outer surface. Also the examiner maintains that the conduit 56 and 57 does extend arcuately around a substantial portion of the inlet lip as seen in figure 3 at least. It can be seen that the flow will go from aperture 53 into arcuate path 56 and then through tubes 38 and 39 and into arcuate path 57 and from path 57 into the aperture 60 and back to the engine. Also it can be seen in figure 3 at least that the arcuate conduit path is around a substantial portion of the inlet lip because part 56 is around 180 degrees and part 57 is also around 180 degrees. Therefore the

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entire flow path that the fluid may travel or some portion may travel is a substantial portion of the inlet lip. The examiner suggests that the applicant claim details such as that the flow of the oil extends through an arcuate flow path that is unbroken by linear flow paths, or that there are no linear flow paths that the oil may take in the flow path.

Claims 2 and 14 are clearly anticipated by Weiler since the conduit (headers 56 and 57) is clearly annular and clearly from figures in the Weiler reference the radius is substantially the same as the radius of the annular lip as seen in figure 3 and 1 at least.

Claims 3 and 15 are clearly anticipated by Weiler since the headers, 56 and 57, are each tubes that are fixed within the inlet lip.

Claims 4, 5, 16, 17, and 19 are anticipated by Weiler as well since the tube (56 and 57) is integral with the lip. These claims being product claims as opposed to process claims, the fact that the conduit is integral with the inlet lip is sufficient to anticipate that the conduit is "cast therewithin".

Claims 6 and 20 are anticipated by Weiler as well since the wall (the unreferenced liner through which the conduits 53 and 60 pass oil through) is an inner liner that is fixed to an inner surface of the inlet lip and defines an oil passage between itself and the inner surface of the inlet lip.

Claims 8 and 22 are anticipated by Weiler since the wall, as defined above with reference to claims 6 and 20, is a structural support as well.

Claims 9 and 18 are anticipated by Weiler since Weiler teaches two annular conduits, 56 and 57.

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Claim 10 is anticipated by Weiler since the headers, 56 and 57 are integrally formed within the inlet lip.

Claims 12 and 24 are clearly anticipated.

The method of claim 25 is clearly anticipated by the disclosure of Weiler, as per the discussion above regarding claims 1 and 13 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiler.

Weiler discloses all of the limitations of claims 7 and 21, as discussed above, but does not explicitly teach that the liner and lip are made of sheet metal. But sheet metal is an old and very well known material that is commonly used in forming aircraft components and specifically for forming the inlet lip and associated elements. It therefore would have been obvious to one having ordinary skill in the art to form the inner liner and inlet lip of the device of Weiler out of sheet metal since it is an old well known material in the art and is commonly utilized for its high strength to weight properties as well as its relative inexpensiveness and availability. It is taken that since

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the applicant has never argued against the well known use of sheet metal that the applicant admits that sheet metal is commonly used and old and well known in the art.

Response to Arguments

Applicant's arguments filed 11/10/05 have been fully considered but they are not persuasive.

The rejections are maintained because the examiner contends that at least the conduits (56 and 57) of Weiler have an inlet and an outlet (e.g., header 56 has an inlet at 53 in figure 3 and an outlet to the tubes, 38 and 39) that are interconnected by an arcuate flow path that constrains pressurized engine oil to flow through the conduit from the inlet to the outlet. With respect to claim 13, the two headers together are considered to be a "conduit extending from an inlet thereof to an outlet thereof around a majority of a perimeter of the inlet lip." It is only claimed that the conduit extends around a majority of the perimeter, not the flow path. Also as seen in Weiler at column 1 in lines 6-10 it can be seen that the reference discloses de-icing the lip of the inlet, which means that the oil going through the conduits 56 and 57 must be heated oil and transferring the heat to the inlet of the device and therefore the claim limitations are met by the reference. Note: it appears that the applicant is arguing more specifically than that which is claimed in that the applicant never precludes the use of straight pipe in the middle of the flow path. Also note as previously stated, the flow may not be completely arcuate in its entire path, however an arcuate flow is over a substantial portion of the inlet.

Allowable Subject Matter

Claims 11 and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Collins whose telephone number is 571-272-6886. The examiner can normally be reached on M-F, 7:00-3:00, with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Timothy D. Collins

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Patent Examiner
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New Sheet
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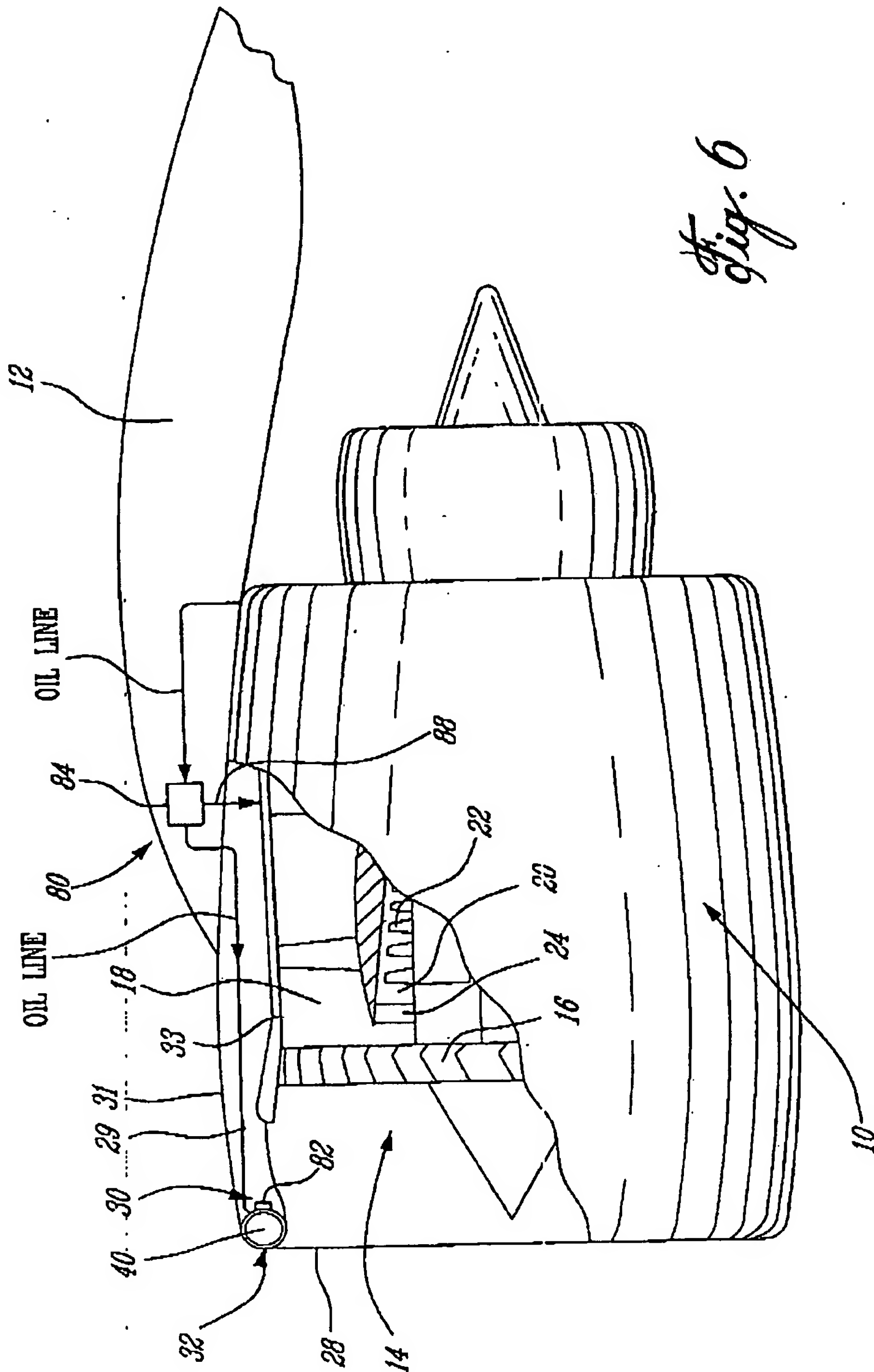


Fig. 6